

SQL Functions

For Data Analysis



Start →

Aggregate functions

1. COUNT ()

This particular function provides **the number of rows within a table** or **the number of non-null values** present in a column.

```
SELECT COUNT(column_name) FROM table_name;
```

2. SUM ()

This function returns **the sum of all values in a numeric column**.

```
SELECT SUM(column_name) FROM table_name;
```



3. AVG ()

This function returns **the average of all values** in a numeric column.

```
SELECT AVG(column_name) FROM table_name;
```

4. MIN ()

This function returns **the minimum value** in a column.

```
SELECT MIN(column_name) FROM table_name;
```

5. MAX ()

This function returns **the maximum value** in a column.

```
SELECT MAX(column_name) FROM table_name;
```

6. GROUP BY ()

This function **groups the rows in a table based on the values in one or more columns** and performs aggregate functions on each group.

```
SELECT COUNT(column_name),  
SUM(column_name),MIN(column_name),  
MAX(column_name)  
FROM table_name GROUP BY column_name;
```



String functions

7. CONCAT ()

This function is used **to concatenate two or more strings** together.

```
SELECT CONCAT(string_1,string_2) FROM table_name;
```

8. UPPER ()

This function is used **to convert all characters in a string to uppercase;**

```
SELECT UPPER(string) FROM table_name;
```



9. LOWER ()

This function is used **to convert all characters in a string to lowercase.**

```
SELECT LOWER(string) FROM table_name;
```

10. LENGTH ()

This function is used **to return the length of a string.**

```
SELECT LENGTH(string) FROM table_name;
```



11. TRIM ()

This function is used **to remove leading or trailing spaces** from a string.

```
SELECT TRIM(string) FROM table_name;
```

12. SUBSTRING ()

This function is used **to extract a substring** from a larger string.

```
SELECT SUBSTRING(string_start,string_position,  
length) FROM table_name;
```



13. REPLACE ()

This function is used **to replace a string within a string** with a different substring.

```
SELECT REPLACE(string,target_string,new_string)  
FROM table_name;
```

Date functions

14. GETDATE ()

This function **returns the current date and time.**

```
SELECT GETDATE() FROM table_name;
```



15. DATEPART ()

This function is used **to extract a specific part of a date**, such as year, month or day.

```
SELECT DATEPART(target_part,date)
FROM table_name;
```

16. DATEADD ()

This function is used **to add a specific number of units** to a date or time value.

```
SELECT DATEADD(unit,value,date)
FROM table_name;
```



17. DATEDIFF ()

This function is used **to calculate the difference between two dates or time values.**

```
SELECT DATEDIFF(unit,start_date,end_date)
FROM table_name;
```

18. YEAR ()

This function is used **to extract the year** from a date value.

```
SELECT YEAR(date) FROM table_name;
```

